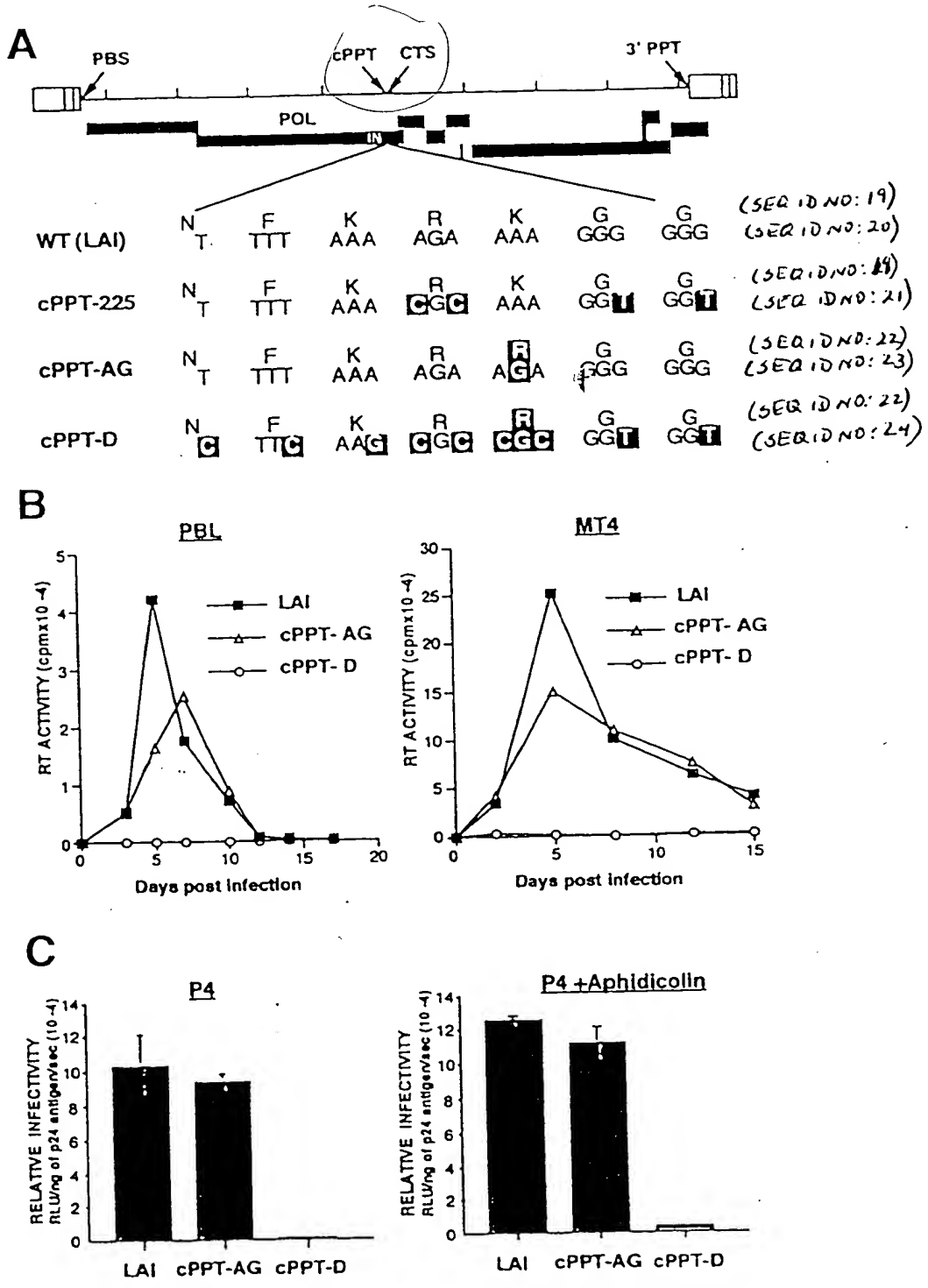
A
PBS
cPPT
CTS
3' PPT
POL
IN
WT (LAI)
cPPT-225
cPPT-AG
cPPT-D
(SEQ ID NO: 19)
(SEQ ID NO: 20)
(SEQ ID NO: 21)
(SEQ ID NO: 22)
(SEQ ID NO: 23)
(SEQ ID NO: 24)
B
PBL
MT4
RT ACTIVITY (cpmx10 -4)
Days post infection
LAI
cPPT- AG
cPPT- D
C
P4
P4 +Aphidicolin
RELATIVE INFECTIVITY
RLU/ng of p24 antigen/sec (10 -4)
LAI
cPPT-AG
cPPT-D

Figure 1

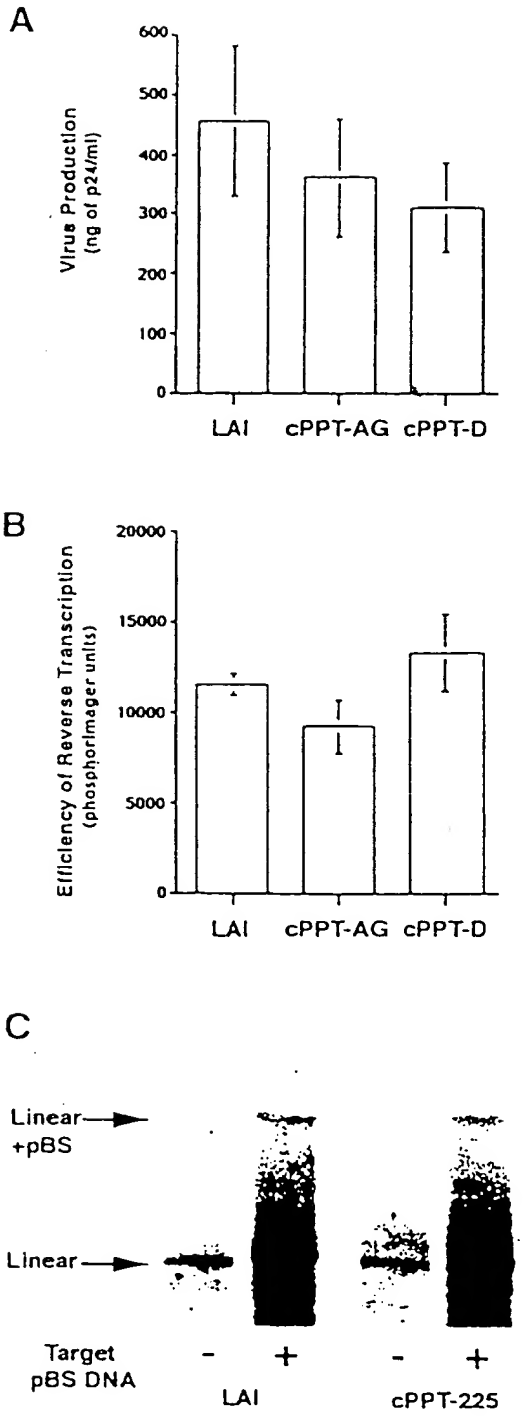
A
Virus Production
(ng of p24/ml)
600
500
400
300
200
100
0
LAI
cPPT-AG
cPPT-D
B
Efficiency of Reverse Transcription
(phosphorimager unit(s))
20000
15000
10000
5000
0
LAI
cPPT-AG
cPPT-D
C
Linear
+pBS
Linear
Target
pBS DNA
-
+
-
+
LAI
cPPT-225

Figure 2

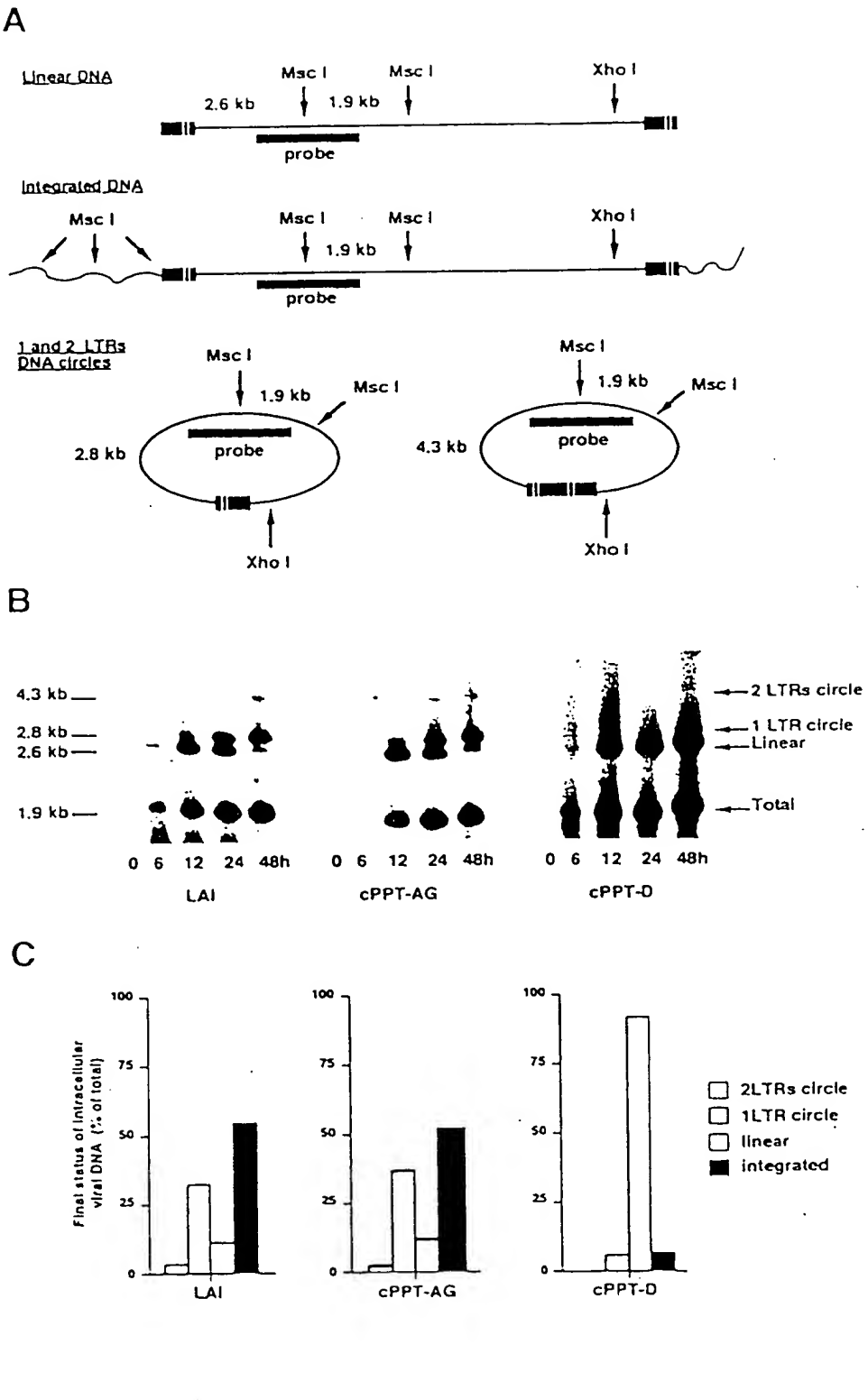
A
Linear DNA
Msc I
Msc I
Xho I
2.6 kb
1.9 kb
probe
Integrated DNA
Msc I
Msc I
Msc I
Xho I
1.9 kb
probe
1 and 2 LTRs DNA circles
Msc I
1.9 kb
Msc I
2.8 kb
probe
Xho I
Msc I
1.9 kb
Msc I
4.3 kb
probe
Xho I
B
4.3 kb
2.8 kb
2.6 kb
1.9 kb
0 6 12 24 48h
LAI
0 6 12 24 48h
cPPT-AG
0 6 12 24 48h
cPPT-D
2 LTRs circle
1 LTR circle
Linear
Total
C
Final status of intracellular viral DNA (% of total)
100
75
50
25
0
LAI
cPPT-AG
cPPT-D
2LTRs circle
1LTR circle
linear
integrated

Figure 3

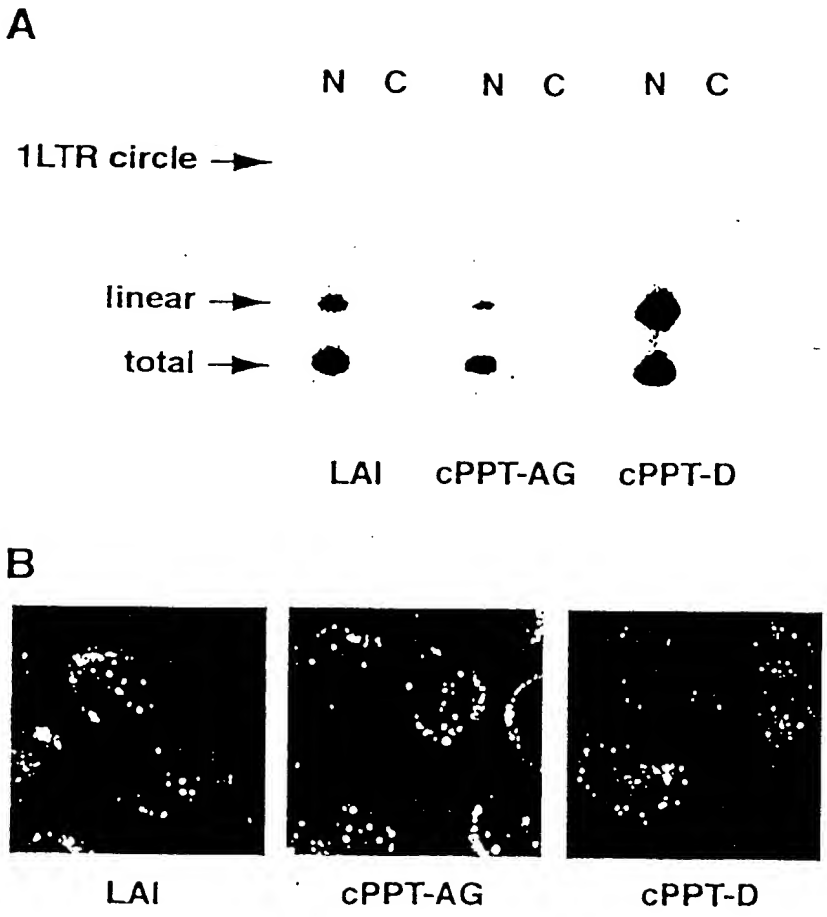
A
N C N C N C
1LTR circle
linear
total
LAI cPPT-AG cPPT-D
B
LAI
cPPT-AG
cPPT-D

Figure 4

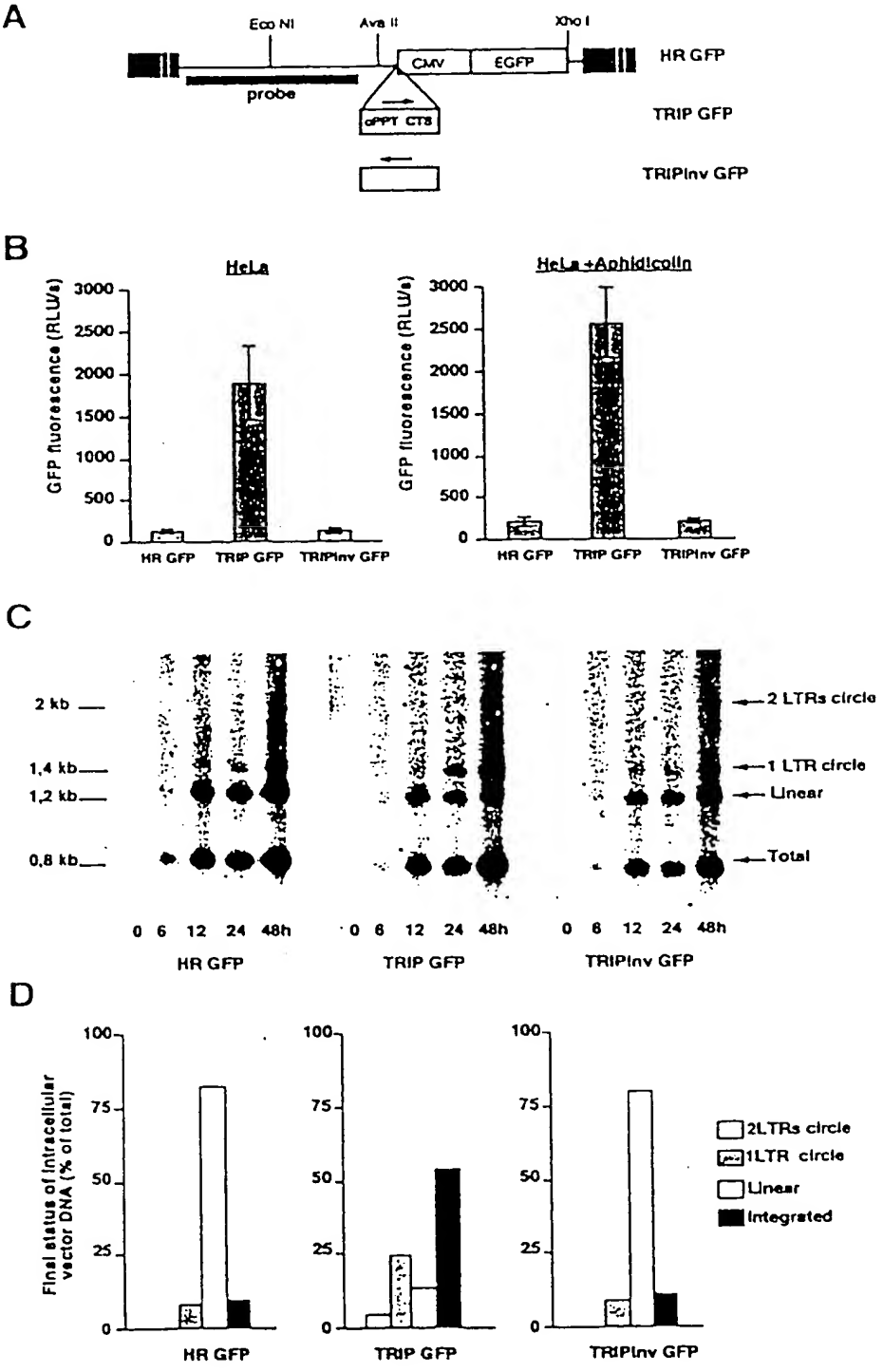
A
Eco NI
Ava II
Xho I
CMV
EGFP
HR GFP
probe
cPPT CTS
TRIP GFP
TRIPinv GFP
B
HeLa
HeLa +Aphidicolin
GFP fluorescence (RLU/s)
3000
2500
2000
1500
1000
500
0
HR GFP
TRIP GFP
TRIPinv GFP
C
2 kb
1,4 kb
1,2 kb
0,8 kb
2 LTRs circle
1 LTR circle
Linear
Total
0 6 12 24 48h
HR GFP
TRIP GFP
TRIPinv GFP
D
Final status of intracellular vector DNA (% of total)
100
75
50
25
0
2LTRs circle
1LTR circle
Linear
Integrated
HR GFP
TRIP GFP
TRIPinv GFP

Figure 5

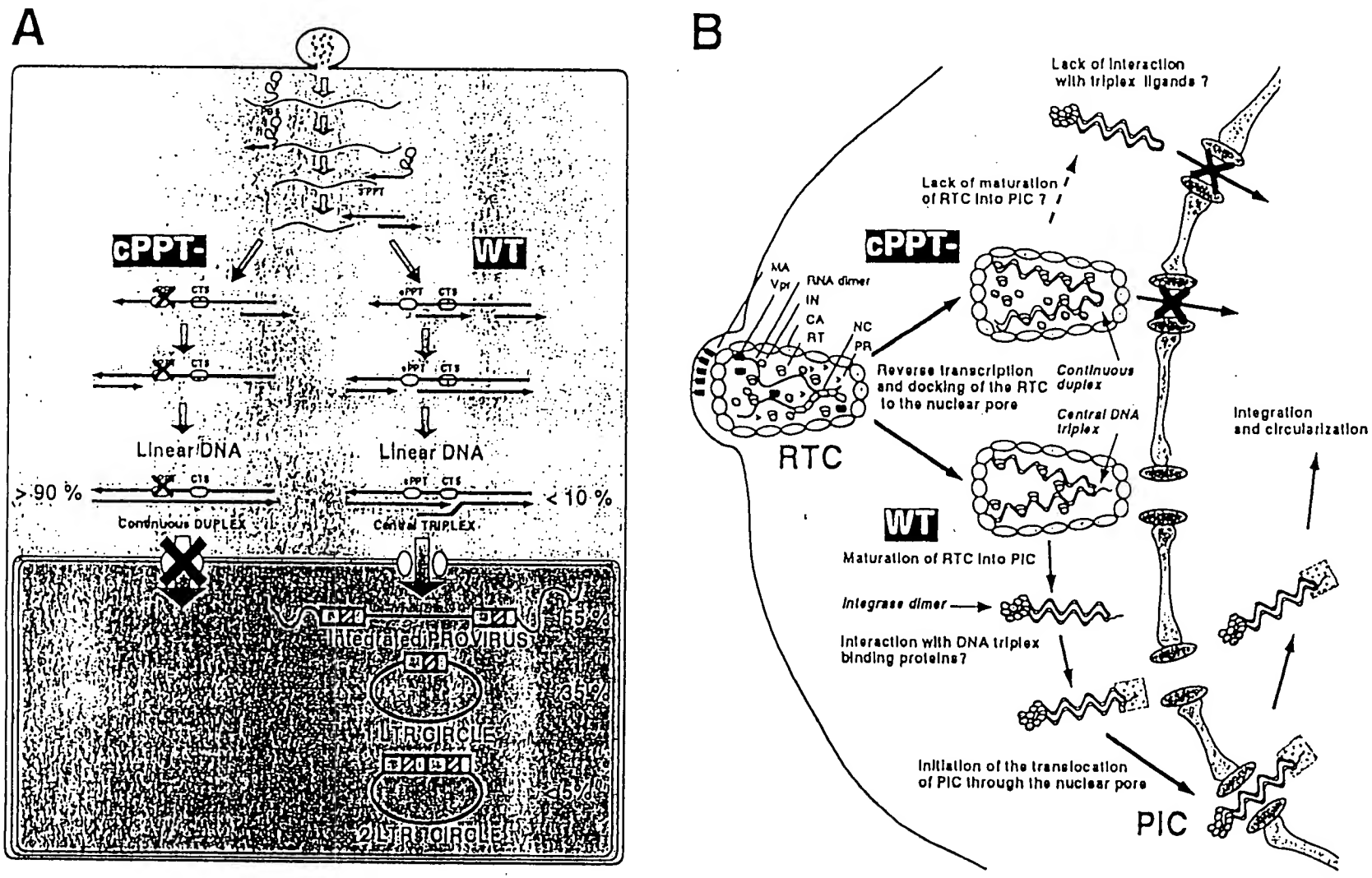

Figure 6

0968534 3 .101.106

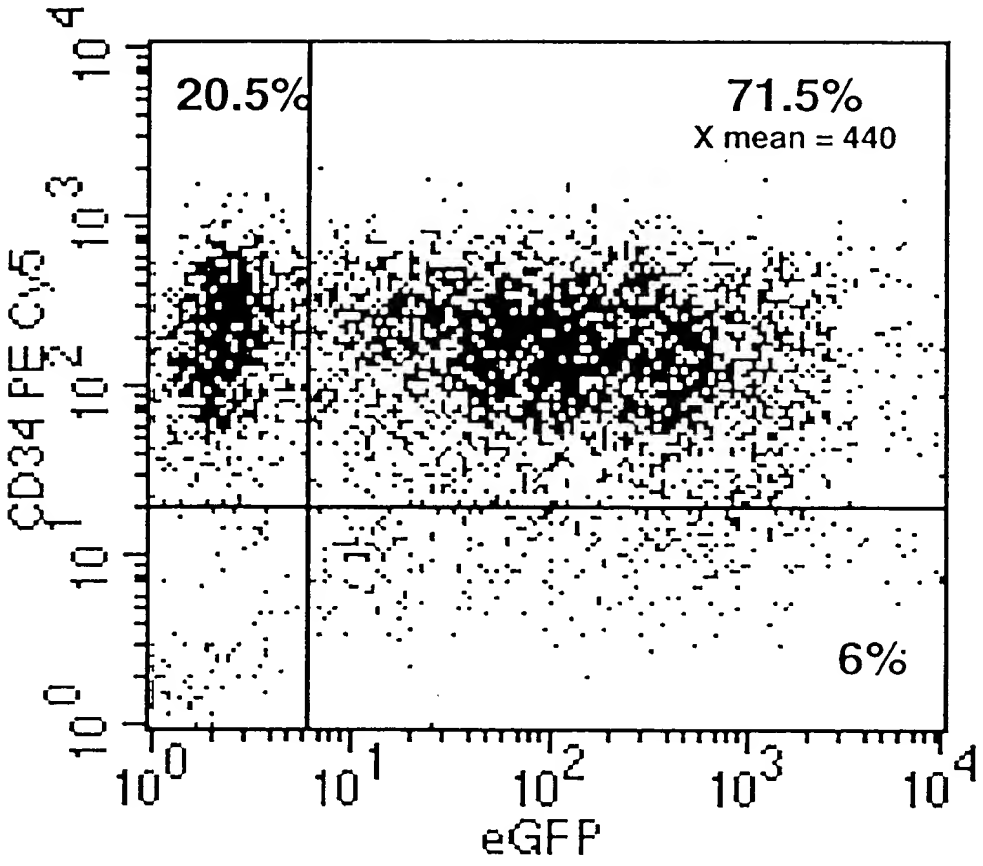

Figure 7A

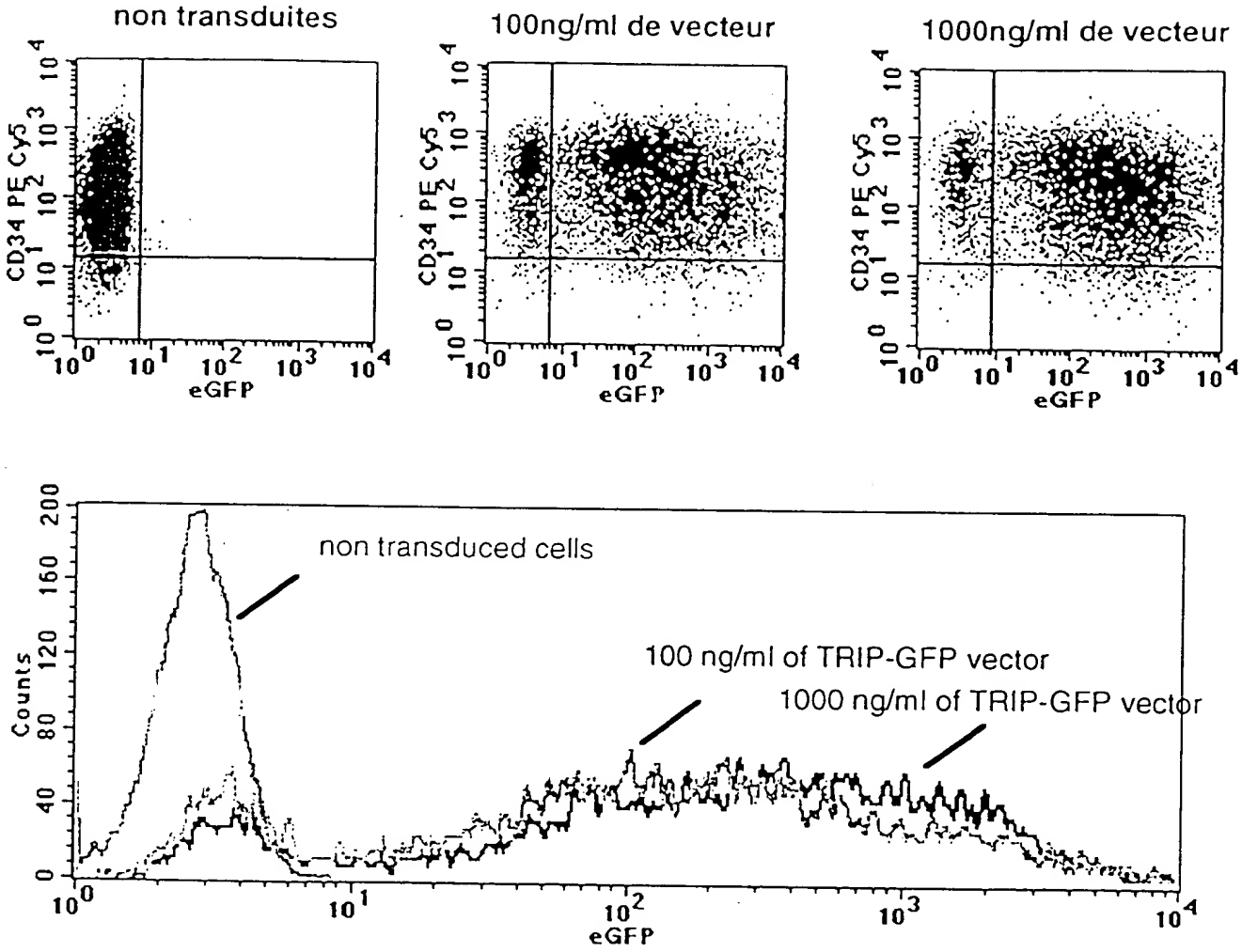
non transduites
100ng/ml de vecteur
1000ng/ml de vecteur
CD34 PE Cy5
eGFP
Counts
non transduced cells
100 ng/ml of TRIP-GFP vector
1000 ng/ml of TRIP-GFP vector

Figure 7B

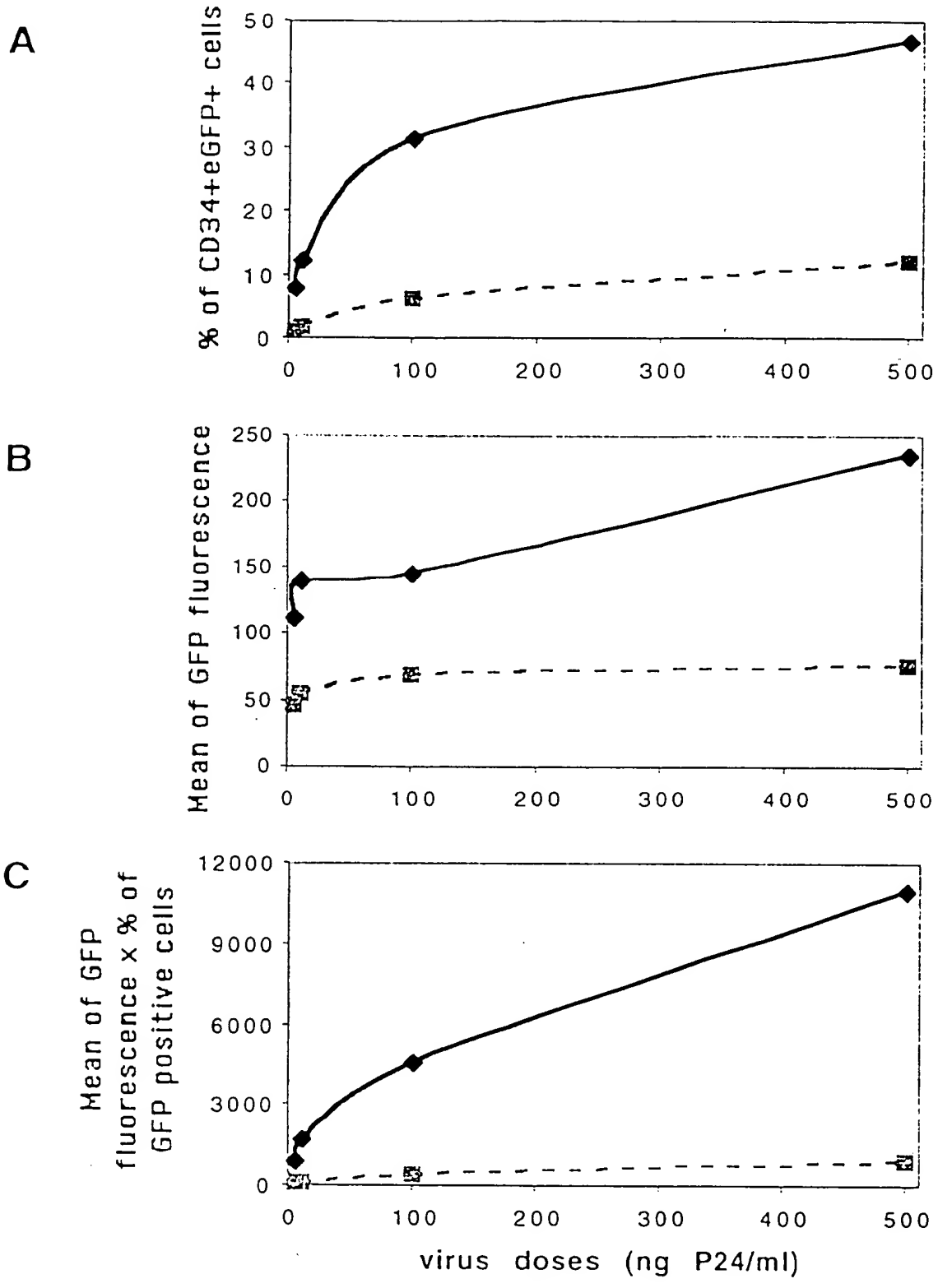
A
% of CD34+eGFP+ cells
0
10
20
30
40
50
0
100
200
300
400
500
B
Mean of GFP fluorescence
0
50
100
150
200
250
0
100
200
300
400
500
C
Mean of GFP fluorescence x % of GFP positive cells
0
3000
6000
9000
12000
0
100
200
300
400
500
virus doses (ng P24/ml)

Figure 8

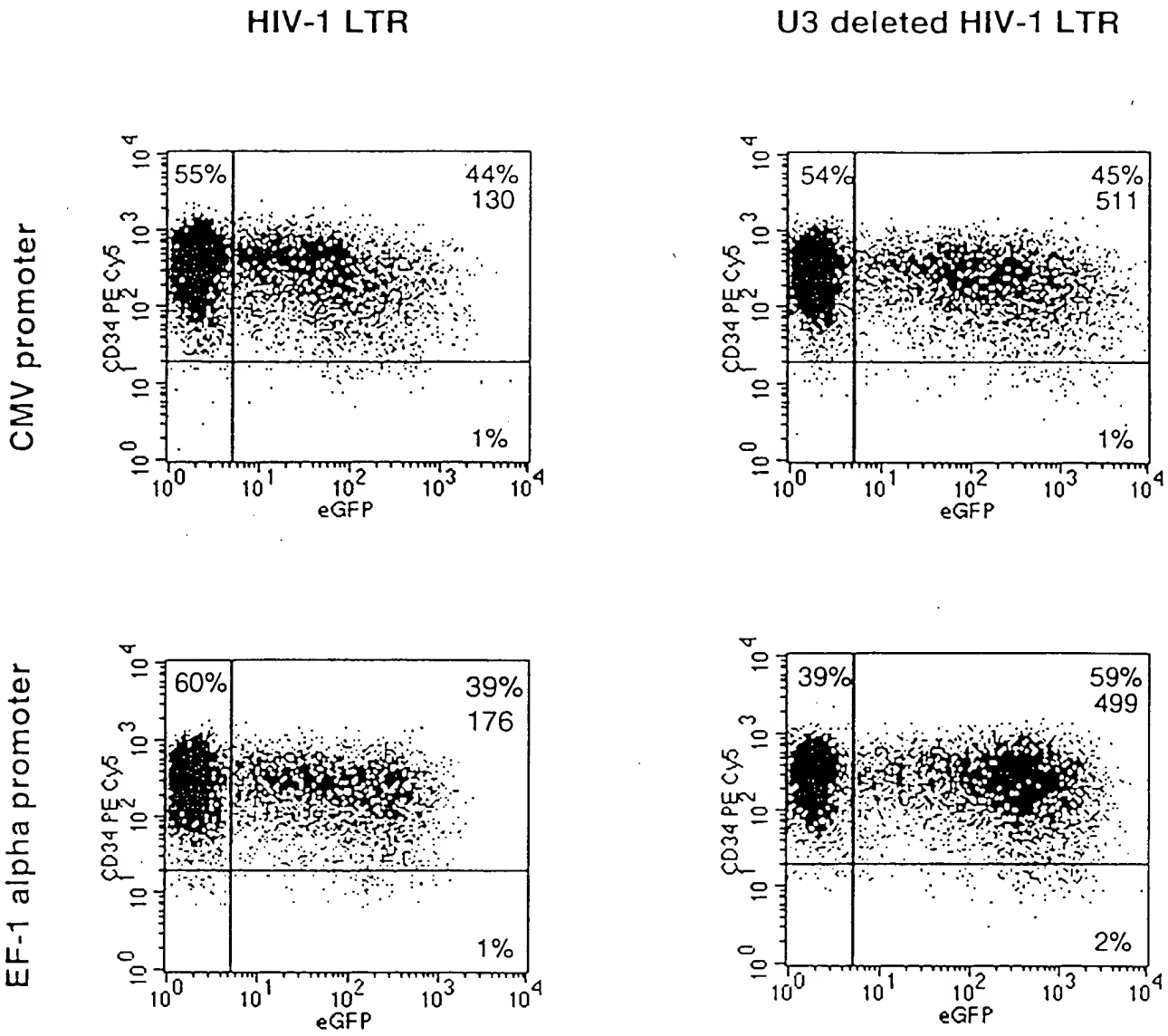
HIV-1 LTR
U3 deleted HIV-1 LTR
CMV promoter
EF-1 alpha promoter
CD34 PE Cy5
eGFP
55%
44%
130
1%
54%
45%
511
1%
60%
39%
176
1%
39%
59%
499
2%

Figure 9A

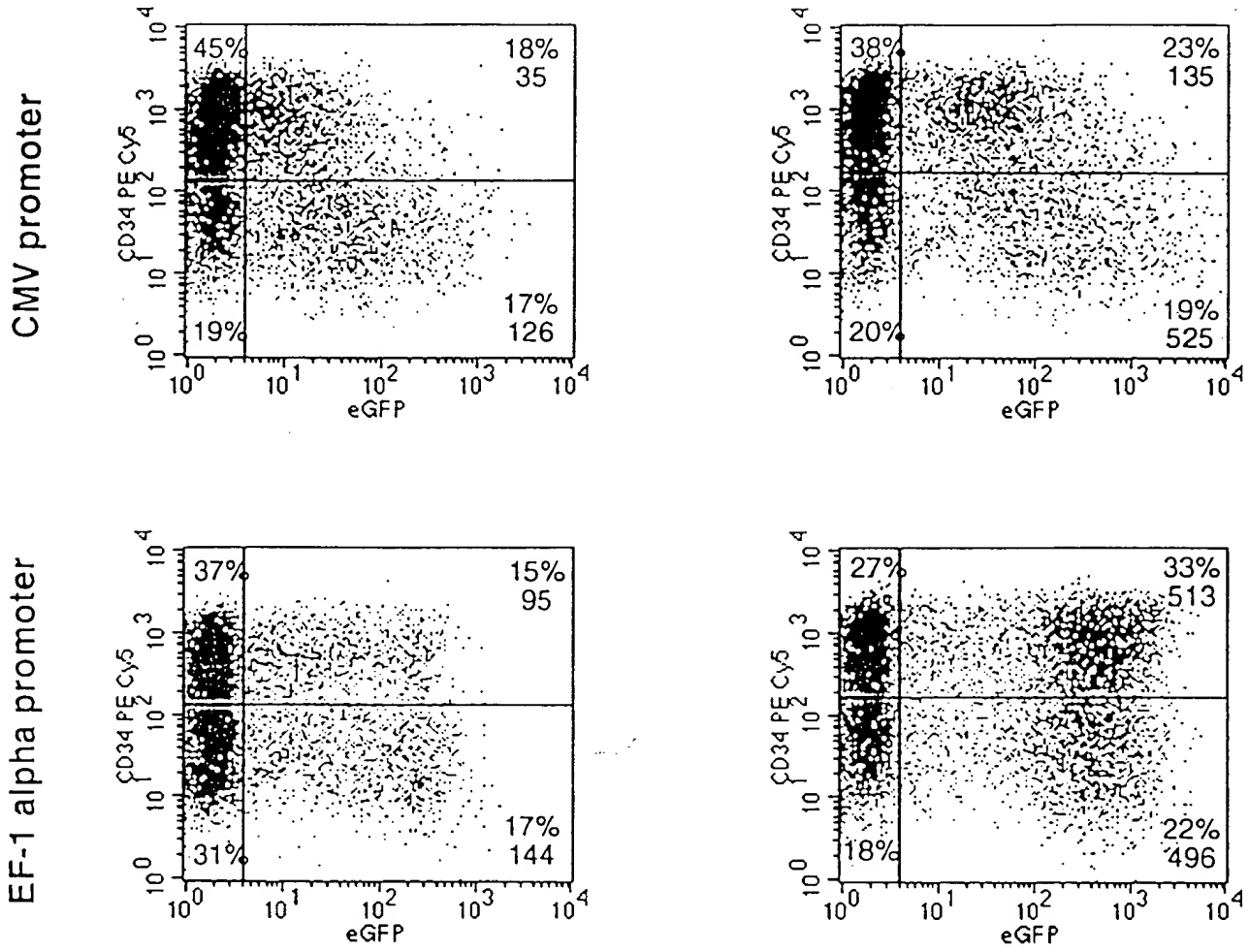
HIV-1 LTR
U3 deleted HIV-1 LTR
CMV promoter
EF-1 alpha promoter
CD34 PE Cy5
eGFP
45%
18%
35
19%
17%
126
38%
23%
135
20%
19%
525
37%
15%
95
31%
17%
144
27%
33%
513
18%
22%
496

Figure 9B